

alfakel

TECHNOLOGY FOR SOUNDPROOFING



ABSORPTIVE **SILENCERS**

S200/100



Description

The Series **S200/100** silencers are absorptive type silencers made of standard dissipative elements. The dissipative elements are made of fiber material wrapped in glass fiber or PVC film and they are inserted in a casing of galvanized sheet or treated with anti-rust. These elements are contained in perforated galvanized sheets.

The thickness of the dissipative elements of the Series **S200/100** is equal to the air passage. As shown in Figure 4, we produce five standard models with varying basic length: mm 1000, 1500, 2000, 2500, and 3000 for various values of BxH section.

Applications

The absorptive silencers Series **S200/100** are designed for all air-borne noise control, and particularly:

- Ventilation and air conditioning systems
- Intake or outlet of fumes or air
- Air cooling for machinery and compressors etc.
- Intake or outlet of large ventilation systems
- Ventilation of soundproofed enclosures

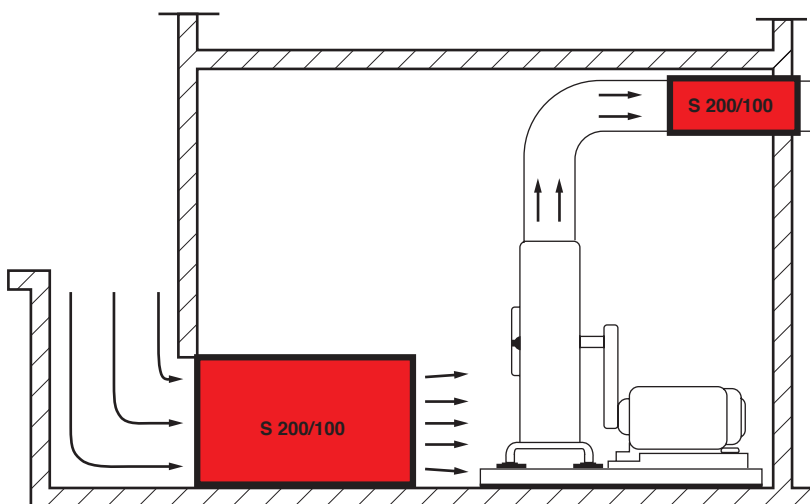


Fig. 2

Which Type of Silencer to Choose

The selection of the best suited silencer is based on:

- **AERODYNAMIC PROPERTIES:** the size of section BxH can be calculated using Figure 3 modeling of air flow capacity as function of the head loss.
- **ACOUSTIC PROPERTIES:** the values of noise mitigation per octave bands of the Series **S200/100** silencers vary depending on the length and can be calculated with the diagram in Figure 5.

For noise remediation requirements different than those indicated in the diagram, we can provide silencers' dissipative elements with different thickness.

Example

For an air duct with flow capacity of 20.000 m³ / h and with maximum head loss of 10 mm. H₂O, Figure 3 diagram indicates a silencer type **S200/100** (BxH = 800 x 1000 mm.).

If the noise abatement required is greater than 25dB at the octave frequency of 250 Hz then Figure 5 indicates the usage of a silencer with L = 1500 mm.

Head Loss

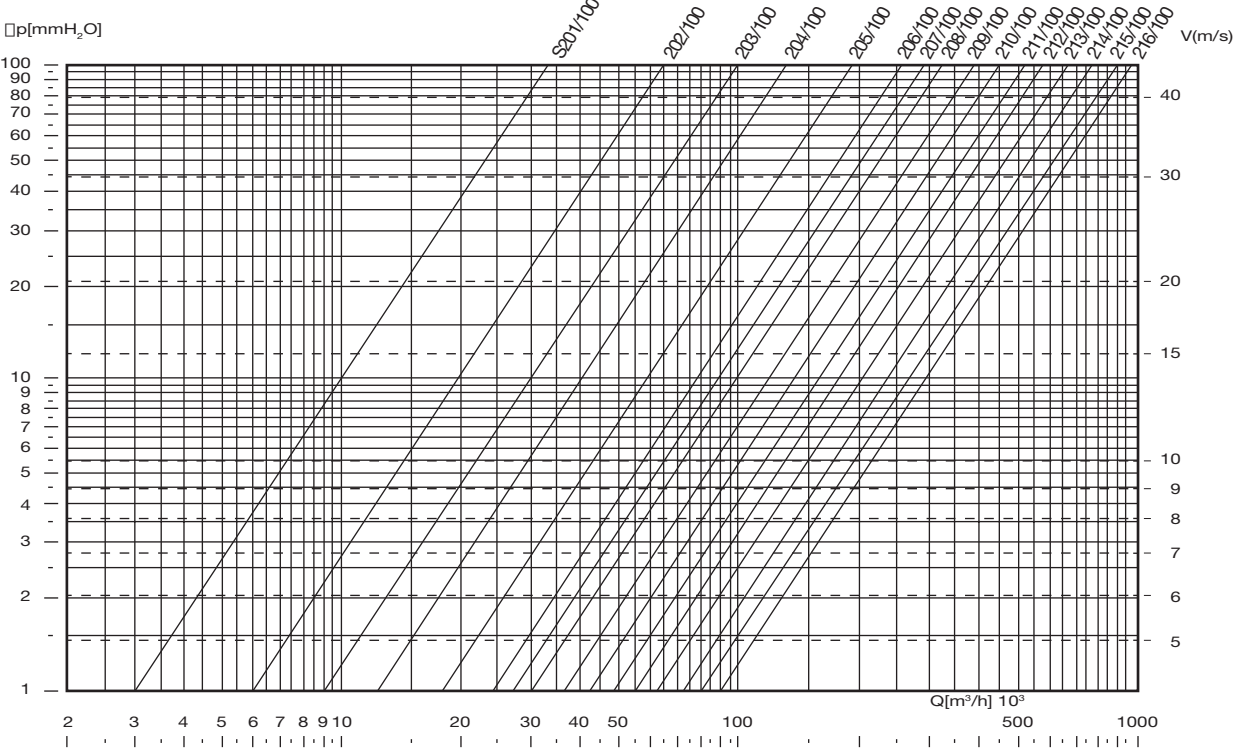
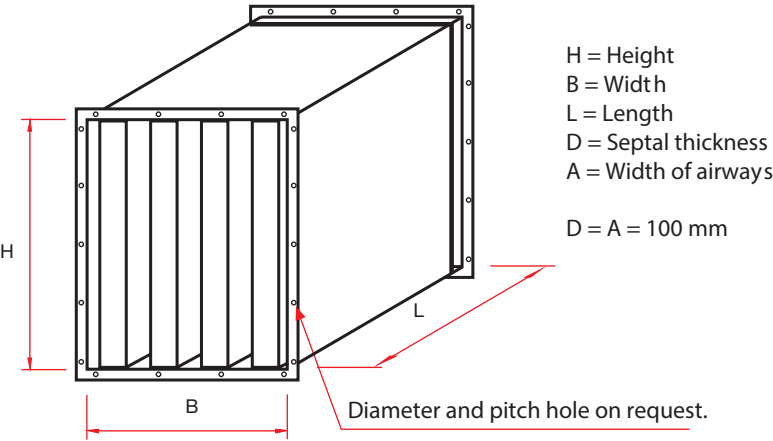


Fig. 3



List of Standard Types

B	H	L = 1000	L = 1500	L = 2000	L = 2500	L = 3000
400	1000	S 201/100/1000	S 201/100/1500	S 201/100/2000	S 201/100/2500	S 201/100/3000
800	1000	S 202/100/1000	S 202/100/1500	S 202/100/2000	S 202/100/2500	S 202/100/3000
1200	1000	S 203/100/1000	S 203/100/1500	S 203/100/2000	S 203/100/2500	S 203/100/3000
1600	1000	S 204/100/1000	S 204/100/1500	S 204/100/2000	S 204/100/2500	S 204/100/3000
1200	2000	S 205/100/1000	S 205/100/1500	S 205/100/2000	S 205/100/2500	S 205/100/3000
1600	2000	S 206/100/1000	S 206/100/1500	S 206/100/2000	S 206/100/2500	S 206/100/3000
1800	2000	S 207/100/1000	S 207/100/1500	S 207/100/2000	S 207/100/2500	S 207/100/3000
2000	2000	S 208/100/1000	S 208/100/1500	S 208/100/2000	S 208/100/2500	S 208/100/3000
2400	2000	S 209/100/1000	S 209/100/1500	S 209/100/2000	S 209/100/2500	S 209/100/3000

Dimensions in mm

Fig. 4

Noise Mitigation

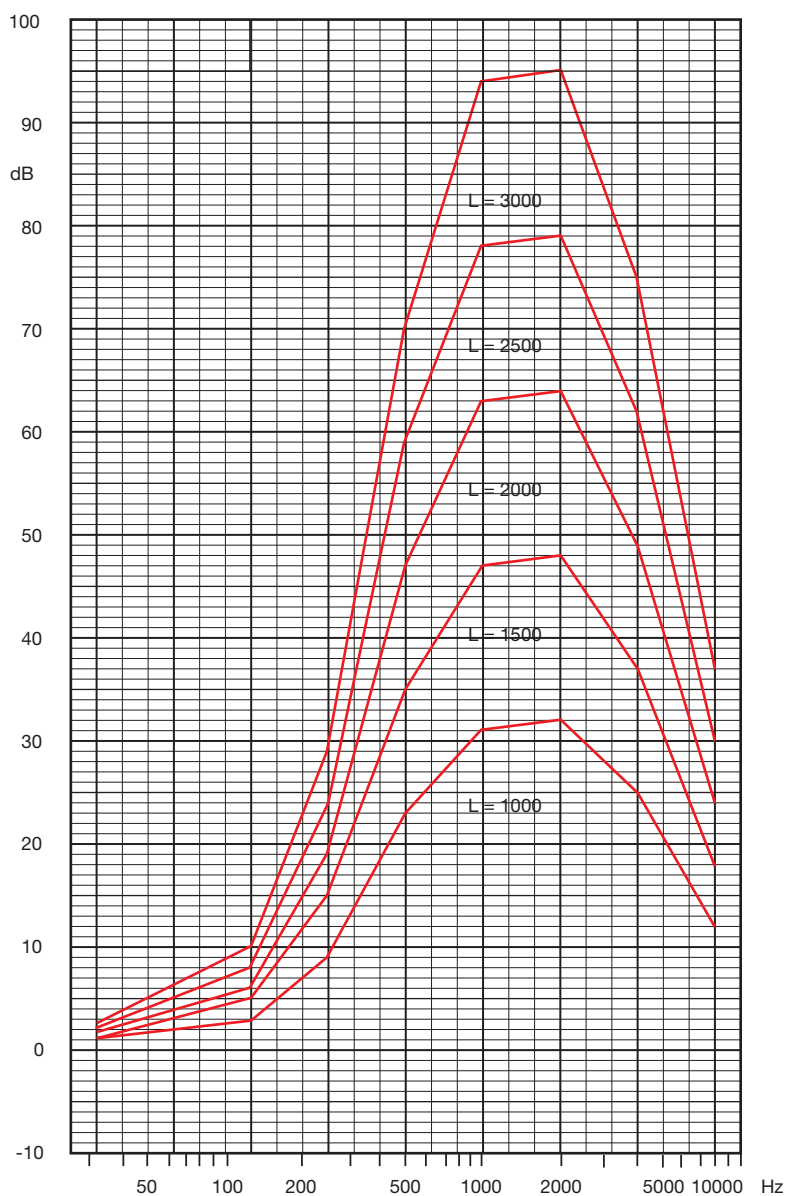


Fig. 5

General Properties

Maximum Temperatures	600 °C
Fire reaction	fire proof
Vibration resistance	excellent
Humidity resistance	excellent
Steam and gas resistance	excellent



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